Amendments to the Claims:

1.   (Currently Amended) Apparatus for a communication system in which space-time encoded data is transmitted at a first location and at least at a second location for communication to a receive station, said receive station for decoding the space-time encoded data received thereat, said apparatus comprising:

a decoder coupled to receive indications of received values of the space-time encoded data received at the receive station, said decoder for directly combining the received values of the space-time encoded data transmitted from different ones of the first and at least second locations to the receive station, the received values of symbols of the space-time encoded data, once directly combined, forming a real-valued vector, free of imaginary component parts, and said decoder further for detecting actual values of the symbols of which the space-time encoded data is formed, based upon the real-valued vector into which the received values are directly combined.

2.   (Previously Presented) The apparatus of claim 1 wherein the space-time encoded data transmitted at the first and at least second locations comprises a space-time encoded block of data, and wherein said decoder directly combines received values of the space-time encoded block.

3.   (Currently Amended) The apparatus of claim 2 wherein said decoder further forms a sequence estimate, the sequence estimate formed of a sequence of values of the actual symbols of the data.

4.   (Original) The apparatus of claim 1 wherein the communication system comprises a radio communication system, wherein the first location at which the space-time encoded data is transmitted comprises a first antenna transducer, wherein the second location at which the space-time encoded data is transmitted comprises a second antenna transducer, the second antenna transducer spaced apart from the first antenna transducer, wherein the receive station comprises a radio receiver, and wherein said decoder is coupled to receive indications of the space-time encoded data received at the radio receiver.

     5.   (Previously Presented) The apparatus of claim 4 wherein the space-time encoded data transmitted at the first antenna transducer is transmitted upon a first communication path to the receive station, wherein the space-time encoded data transmitted at the second antenna transducer is transmitted upon a second communication path to the receive station, wherein the receive station comprises at least one receive-antenna transducer coupled to transduce indications of the space-time encoded data transmitted upon the first and second communication paths, respectively, into electrical form, and wherein the indications of the received values of the space-time encoded data to which said decoder is coupled to receive are in electrical form, subsequent to reception at the receive-antenna transducer.

     6-10.   (Cancelled)

     11.   (Currently Amended) A method for communicating in a communication system in which space-time encoded data is transmitted at a first location and at least a second location for communication to a receive station, said method for decoding the space-time encoded data, once received at the receive station, said method comprising the operations of:

          directly combining received values of the space-time encoded data transmitted from different ones of the first and at least second locations to the receive station, the received values ~~of symbols~~ of the space-time encoded data once directly combined, forming a real-valued vector, free of imaginary component parts;

          detecting values of ~~actual~~ symbols of <u>which</u> the <u>space-time encoded</u> data <u>is formed</u>, once combined during said operation of directly combining received values of the space-time encoded data.

     12.   (Previously Presented) The method of claim 11 wherein the space-time encoded data transmitted at the first and at least second locations comprises a space-time encoded block of data and wherein said operation of directly combining received values of the space-time encoded data comprises directly combining values of the space-time encoded block.

     13.   (Currently Amended) The method of claim 12 further comprising the operation of forming a sequence estimate, the sequence estimate formed of a sequence of values of the

~~actual~~ symbols ~~of the data~~ detected during said operation of detecting values of ~~actual~~ symbols of <u>which</u> the <u>space-time encoded</u> data <u>is formed</u>.

14.   (Previously Presented) The method of claim 11 wherein the communication system comprises a radio communication system, wherein the first location at which the space-time encoded data is transmitted comprises a first antenna transducer, wherein the second location at which the space-time encoded data is transmitted comprises a second antenna transducer, the second antenna transducer spaced apart from the first antenna transducer, wherein the receive station comprises a radio receiver, said method further comprising the operation of receiving indications of the space-time encoded data at the radio receiver prior to said operation of directly combining the received values of the space-time encoded data.

15.   (Previously Presented) The method of claim 14 wherein the space-time encoded data transmitted at the first antenna transducer is transmitted upon a first communication path to the receive station, wherein the space-time encoded data transmitted at the second antenna is transmitted upon a second communication path to the receive station, wherein the receive station comprises at least one receive antenna transducer and wherein said operation of receiving indications of the space-time encoded data comprises transducing said indications of the received values of the space-time encoded data transmitted upon the first and second communication paths, respectively, into electrical form.

16-20. (Cancelled)